

## APPENDIX A

# INTEGRATION OF HEAVY AND LIGHT FORCES

*Employing tank and mechanized infantry task forces with light units is a combat multiplier. These operations take advantage of the light unit's ability to operate in restricted terrain (such as urban areas, forests, and mountains) and the mobility and firepower inherent in heavy units. To ensure mechanized and light assets are integrated and synchronized, forces should be mutually supporting based on the commander's concept of employment. This appendix addresses conditions battalion task force commanders must consider when planning and executing two types of tactical operations: when provided a light infantry company and when operating as part of a light brigade.*

### Section I. ORGANIZATION, CAPABILITIES, AND LIMITATIONS

Across the spectrum of operations there is an overlap in which both armored and light forces can operate. The use of a mixed force in this overlap takes advantage of the strengths of both forces and offsets their respective weaknesses. Heavy/light operations occur when a mechanized/armored force has light forces attached. Light/heavy operations occur when a mechanized/armored force is under the OPCON of a light infantry force. The integration of armored and light forces can take advantage of the enemy force's structure to attack its weaknesses and seize the initiative .

**NOTE:** For the purpose of brevity, this appendix will use the term *heavy* to indicate BFV- and tank-equipped units.

#### A-1. HEAVY FORCES AND LIGHT INFANTRY OPERATIONS

The potential to use heavy and light forces together to capitalize on each other's strengths, offset weaknesses, and attack the perceived weaknesses of any hostile force in war and conflict is unlimited. The interjection of light forces in a heavy theater allows a flexible response to increasing tensions and a rapid response in the face of a sudden all-out attack.

a. **Factors of METT-TC.** Heavy and light infantry forces are not routinely mixed but can be effective given the proper situation. The decision to cross-attach light infantry is based on corps-level war planning or on the initiation of a subordinate commander's request for light infantry augmentation. In all cases, the factors of METT-TC drive the decision to use heavy and light forces together.

b. **Advantages and Challenges.** One advantage of mixing heavy and light infantry forces is greater tactical flexibility for the maneuver commander. In the offense, the light infantry company can infiltrate by ground to seize and hold restricted terrain, allowing the battalion task force to move faster, or it can air-assault into the enemy's rear, disrupting his defenses to create an exploitable weakness. Additionally, it can execute tasks that heavy forces may not have the manpower or training to perform, such as attacking in restricted terrain to defeat enemy infantry in prepared positions. In the defense, the light infantry company can defend in restricted terrain and allow the battalion task force to mass its heavy systems along the enemy's primary mounted avenue

of approach. Along with such flexibility, the integrated force also has the advantage of the mobility and firepower inherent in heavy units. The challenge of heavy and light operations is to understand the capabilities and limitations of each type of mechanized/armored and light force structure. To ensure effective integration of heavy and light assets, all forces should be mutually supporting based on the commander's concept of employment.

## **A-2. LIGHT FORCES MISSIONS, CAPABILITIES, AND LIMITATIONS**

The battalion task force may support any of three primary types of light brigades: light infantry, airborne, and air assault. These organizations vary in capabilities and limitations and in their impact on the heavy force. For example, differences in the organization of the brigade headquarters and in antiarmor capability may affect the battalion task force mission. The commander and staff must understand the organization of the light forces that the task force may support and light forces that may be attached or OPCON to the task force.

a. **Missions.** The missions given to a light infantry battalion in heavy/light operations must consider the enemy's armored superiority in mobility and firepower. The light infantry battalion must offset its vulnerabilities with dispersion, cover and concealment, and use of close and hindering terrain to slow the enemy. Table A-1 shows possible light infantry tasks.

<b>HEAVY TASK FORCE MISSIONS</b>	<b>LIGHT INFANTRY COMPANY TASK</b>
<b>Movement to Contact</b>	Clear and secure restricted areas; follow and support.
<b>Attack</b>	Air-assault to fix or destroy enemy targets; infiltrate or air-assault to seize objectives; breach obstacles; create a penetration.
<b>Exploitation</b>	Secure LOC; air-assault to seize terrain or attack enemy forces.
<b>Pursuit</b>	Clear bypassed forces; air-assault to block enemy escape.
<b>Follow and Support</b>	Secure key terrain and LOC; provide rear security.
<b>Defense</b>	Block dismounted avenues; perform security tasks; occupy strongpoint; ambush; provide rear area security; conduct military operations on urbanized terrain.
<b>Linkup</b>	Serve as follow-up echelon.
<b>Demonstration</b>	Conduct display operations.
<b>Retrograde Operations</b>	Provide rear security, clear routes, occupy positions in depth; perform reconnaissance or deception; conduct stay-behind operations.

**Table A-1. Example of possible light infantry tasks.**

- b. **Capabilities.** Light forces have the capabilities to perform the following actions:
  - Seize, occupy, and hold terrain.
  - Move on foot or by aircraft, truck, or amphibious vehicle.
  - Move in all types of terrain.
  - Conduct operations with tank and mechanized infantry forces.
  - Conduct covert breaches.
  - Conduct air assault operations.
  - Take part in counterinsurgency operations within a larger unit.
  - Rapidly accept and integrate augmenting forces.
- c. **Limitations.** Light forces have the following limitations:
  - They must depend on nonorganic transportation for rapid movement over long distances.
  - Without protective clothing, they are vulnerable to the effects of prolonged NBC exposure.
  - They require external support when they must operate for an extended period.
  - Unless dug in with overhead cover, they are extremely vulnerable to indirect fires.
  - Unless dug in, they are vulnerable in open terrain to long-range direct fires.

### **A-3. LIGHT INFANTRY BRIGADE**

Light infantry brigades have the most austere of the three light headquarters organizations in terms of communications capabilities and the number of staff officers. There are few vehicles in the main CP. Organizational maintenance is centralized at the brigade maintenance section. All Class I rations are prepared by the brigade mess team. Like the light infantry division, the brigade must depend on corps-level transportation assets. A key characteristic of the light infantry brigade is its limited antiarmor capability. There are 12 TOWs and Javelins per brigade. In addition, the light infantry division has only one attack helicopter battalion and an air cavalry squadron.

### **A-4. AIRBORNE BRIGADE**

Once it completes entry operations, the airborne brigade essentially functions as a light infantry brigade. It has more CS and CSS assets than does the light infantry brigade and has 60 TOWs and 54 Dragons or Javelins. The airborne division has only one attack helicopter battalion and an air cavalry squadron.

### **A-5. AIR ASSAULT BRIGADE**

Staff and CSS functions in the air assault brigade are similar to those in tank and mechanized brigades. The air assault brigade uses helicopters to extend its command and control and CSS capabilities. Antiarmor capability is the same as for the airborne brigade. The air assault division has a combat aviation brigade, consisting of three attack helicopter battalions and an air cavalry squadron, that adds to its antiarmor capability.

### **A-6. LIGHT INFANTRY BATTALION**

The light infantry battalion is the most austere light battalion and the one whose organization is most different from that of a heavy battalion. There are only three rifle companies and a headquarters company in the battalion. It has four TOWs and 18

Dragons or Javelins. Organic fire support is provided by an 81-mm mortar platoon assigned to the headquarters company. Differences between this battalion and the air assault and airborne battalions are greatest in the organization of support and logistics elements. It has no trucks larger than its 27 cargo HMMWVs. The battalion has no mess team; Class I is prepared at brigade level. There is only one mechanic in the entire battalion; repairs are conducted at the brigade level. The battalion has only 18 long-range radios.

#### **A-7. AIR ASSAULT AND AIRBORNE BATTALIONS**

Once inserted, the air assault and airborne battalions perform much like the light infantry battalion, using walking as a primary means of transportation. Each battalion has ten 2-1/2 ton trucks and 36 cargo HMMWVs and can conduct nontactical movement by truck. Each has a mess section and a 16-man maintenance platoon. Air assault and airborne battalions have 30 long-range radios, 20 TOWs, and 18 Dragons or Javelins. An 81-mm mortar platoon assigned to the headquarters company provides organic fire support.

#### **A-8. LIGHT INFANTRY COMPANY**

The light infantry company has three platoons and a headquarters section,--a total of 129 soldiers. The company headquarters contains both the antiarmor section, consisting of six Dragons or Javelins, and the mortar section, which has two 60-mm mortars. The rifle platoons, with 34 soldiers each, are organized into three squads and a headquarters section, which controls the platoon's machine guns. Each rifle squad consists of two fire teams.

#### **A-9. AIRBORNE AND AIR ASSAULT COMPANIES**

Airborne and air assault companies are capable of independent action. Each of the three rifle platoons has a weapons squad as well as three rifle squads. The weapons squads have both machine-gun crews and antiarmor missile crews. The company headquarters retains control of the 60-mm mortar section.

### **Section II. PLANNING CONSIDERATIONS**

Employment of heavy and light forces requires thorough integration of the operating systems of both types of units. This section focuses on planning considerations for each of the seven operating systems.

#### **A-10. COMMAND AND CONTROL**

The directing headquarters designates command relationships between light infantry and the tank or mechanized infantry force. The command relationship between a light unit and a heavy unit can be either attached or OPCON. A light unit attached to a heavy unit can normally be adequately supported. Attachment of a heavy unit to a light unit, however, requires considerable CS and CSS support from the heavy unit's parent organization or from higher-level support assets.

a. **Communications.** Light units normally have considerably less digital and long-range communications capability than their heavy-force counterparts. A gaining heavy unit must therefore thoroughly analyze the communications requirements of an attached light unit.

b. **Liaison Officers.** Units conducting light/heavy or heavy/light operations normally exchange LNOs who assist in joint operational planning, coordinate the development of orders and overlays, and serve as advisors to the counterpart units. In addition, leaders from the attached unit may be required to perform special functions in the light/heavy or heavy/light configuration.

#### A-11. INTELLIGENCE

Detailed intelligence is critical in integrating light infantry with tank and mechanized infantry forces. Light forces orient on concentrations of enemy units, including counterattack forces and artillery and air defense assets; they also focus on the enemy's infantry avenues of approach and LZs and PZs.

#### A-12. MANEUVER

Either the light force or the tank or mechanized infantry force can fix the enemy, allowing the other force to maneuver. Whether it conducts the fixing operation or maneuver, the light force requires the advantage of close terrain. The following maneuver considerations apply in light/heavy or heavy/light employment.

a. **Operational Tempo.** The differences between the operational tempo of light infantry and that of tanks and mechanized infantry is always a key consideration, as are rehearsal schedules. An early rehearsal may be required both to allow light and heavy forces to take part jointly and to resolve the operational differences effectively. Task-organize as early as possible to facilitate multiple rehearsals, SOP reviews, and orders development.

b. **Employment.** The light force is best suited to close and restricted terrain, where it can impede the enemy's mobility and nullify his ability to use long-range weapons and observation assets.

c. **Movement.** To help prevent detection, leaders should plan the movement of light infantry to coincide with limited visibility conditions such as darkness, severe weather, smoke, or fog.

d. **Fires.** Direct and indirect fires should be mutually supporting during integrated operations. The company team can use its long-range direct fires to provide suppression, allowing infantry units to maneuver. Conversely, light infantry forces can provide overwatch or support by fire to the company team, allowing tanks and BFVs to maneuver in restricted terrain.

e. **Infiltration.** Mechanized units can assist infiltration by augmenting security at the LD. They can use their thermal capability to scan the area for enemy forces and can provide direct fire support as necessary.

#### A-13. FIRE SUPPORT

The mechanized infantry or armored force must recognize that dismounted infantry operations focus on stealth, which might not allow for preparatory and other preliminary fires. Fire support available to each force must be integrated into the fire support plan. Planners must know the organizations, capabilities, and limitations of all forces involved, particularly their digital and nondigital capabilities. During planning and preparation, a liaison team helps synchronize fire support. Restrictive fire control measures must be jointly developed and understood by everyone.

**A-14. AIR DEFENSE**

Air defense assets may be deployed to fight and provide protection within the scope and design of any organization. Because infantry forces frequently maneuver in restricted terrain, Avenger and BSFV coverage may not be feasible. In such operations, man-portable Stingers should be allocated to support the infantry.

**A-15. MOBILITY AND SURVIVABILITY**

A common obstacle plan must be developed for light/heavy or heavy/light operations. Light forces may be used to reduce obstacles and clear choke points for the tank and mechanized infantry forces. In breaching operations, light forces must ensure the breach is large enough for the widest vehicle in the operation. Survivability remains the priority for light forces, which must prepare to take advantage of the engineer assets available to the mechanized infantry and armored forces.

**A-16. NUCLEAR, BIOLOGICAL, CHEMICAL**

The light force lacks decontamination equipment and is more limited in an NBC environment than the mechanized infantry and armored force. The soldiers need to carry protective clothing in addition to their standard loads, which affects the mobility of the light force. When higher headquarters cannot provide transportation assets, planners should arrange for mechanized infantry and armored unit vehicles to help transport light-force NBC equipment. A mechanized infantry and tank battalion task force also has expedient devices and water-hauling capabilities it can use to offset light-force shortfalls. Transporting these items with mechanized or armored assets reduces the load of light infantry units. Commanders must consider METT-TC and must plan linkup points to ensure the light unit obtains these critical items as it needs them.

**A-17. COMBAT SERVICE SUPPORT**

Light units are not organized, equipped, or trained to meet the support requirements of a heavy force. The light force relies on considerable assistance from the heavy force's organic elements and from corps-level support assets. Heavy units, however, should be able to provide support to a light infantry element. For a more detailed discussion of CSS considerations, refer to Section V of this appendix.

**Section III. OPERATIONS**

Employment of heavy and light forces requires thorough understanding of tactical employment of light forces during the conduct of the offense or defense. This section focuses on tactical employment of combined heavy and light forces during combat operations.

**A-18. OFFENSIVE OPERATIONS**

The fundamentals, principles, and concepts discussed in Chapter 5 apply to light infantry as well as to heavy force offensive operations. While combining these forces in the offense can work many different ways, the following are some of the most common examples.

a. **Heavy Force Support, Light Force Assault.** Tanks and BFVs support by fire while the infantry assaults the objective. The vehicles fire from hull-defilade positions

until the infantry masks their fires. This is the most effective method for BFVs and may be used with tanks when antitank weapons or obstacles prohibit them from moving to the objective.

(1) This method may incorporate a feint to deceive the enemy as to the location of the main attack. If so, the heavy force supporting attack is timed to divert the enemy's attention from the light force's assault. The fires of the heavy force may also cover the sound of the infantry's approach or breach. Close coordination is vital for effective fire control.

(2) This method may vary when either the terrain or disposition of the enemy limits the ability of the heavy force to support the infantry's attack. In this case, the heavy force may be tasked to suppress or fix adjacent enemy positions or to accomplish other tasks to isolate the objective area.

b. **Simultaneous Assault.** With this method, light and heavy forces advance together, and infantry and vehicles move at the same speed. The vehicles may advance rapidly for short distances, stop and provide overwatch, then move forward again when the infantry comes abreast. Tanks are best suited to assault under fire. Mechanized infantry vehicles may also be used in this manner but only when the threat of antitank fires is small. If an antitank threat exists, infantry usually leads while the vehicles follow to provide fire support.

(1) Simultaneous assault may be used when the enemy situation is vague, when the objective is large and consists of both open and restricted terrain, or when visibility, fields of fire, and the movements of the heavy force are restricted. These conditions exist during periods of restricted visibility and in restricted terrain, such as in urban areas and wooded areas. The vehicles provide immediate close direct fires, and the infantry protects the vehicles from individual antitank measures.

(2) This method sometimes requires infantry to follow a safe distance behind the tanks or BFVs for protection from frontal fires. This is true when the main enemy threat is small arms fire. From behind the tanks or BFVs, the infantry can protect the flanks and rear of the vehicles from handheld antitank weapons.

(3) Simultaneous assault may require light and heavy forces to advance together in operations that require long, fast moves. Infantrymen ride on the armored vehicles or trucks until they make contact with the enemy. Although this is a quick way to move, it exposes infantry to enemy fire, particularly airburst munitions, and may interfere with the operation of BFVs and tanks.

c. **Assault from Different Directions.** With this method, heavy and light forces converge on the objective from different directions. BFVs, tanks, and light infantry advance by different routes and assault the objective at the same time. For this synchronization to succeed, the light infantry elements maneuver and close on their assault position, ideally under cover of darkness or poor weather. The synchronization of the assault provides surprise, increases fire effect, and maximizes shock action. Planning, disseminating, and rehearsing the coordination of direct and indirect fire measures are critical in this type of operation.

(1) Assault from different directions is effective when using tanks and BFVs and when two conditions exist. First, terrain must be at least partly open and free from mines and other armored vehicle obstacles. Second, supporting fires and smoke must effectively

neutralize enemy antitank weapons during the brief period required for the tanks/BFVs to move from their assault positions to the near edge of the objective.

(2) This method requires coordination of light infantry and heavy forces to provide effective fire control on the objective. When conditions prohibit the armored vehicles from advancing rapidly, infantry should accompany them to provide protection.

### **A-19. EXPLOITATION**

Exploitation follows success in battle. The heavy force is usually the most capable exploitation force. It takes full advantage of the enemy's disorganization by driving into his rear to destroy and defeat him. A heavy force operating as a team (BFV- and tank-equipped units) may exploit the local defeat of an enemy force or the capture of an enemy position. The purpose of this type of operation is to prevent reconstitution of enemy defenses, to prevent enemy withdrawal, and to secure deep objectives. A common combination is a heavy task force reinforced by an attached light infantry company, engineers, and other supporting units. The infantry may be transported in armored vehicles or trucks or may ride on the tanks. Riding on tanks reduces road space, decreases supply problems, and keeps the members of the team together. Infantry leaders ride with the corresponding tank unit commanders. The TF commander must weigh the likelihood of enemy contact against the need for speed.

### **A-20. DEFENSIVE OPERATIONS**

The combination of light infantry and heavy forces is well suited to conduct defensive operations. The heavy force provides a concentration of antiarmor weapons and the capability to counterattack by fire or maneuver rapidly. The light force can occupy strongpoints, conduct spoiling attacks, and conduct stay-behind operations. The fundamentals, principles, and concepts discussed in Chapter 6 apply to combined light and heavy force defensive operations.

a. **Light Force in Depth, Heavy Force Forward.** The mechanized infantry and armored unit covers forward of a light unit's defense, masking the location of the light unit. While passing through the light unit's positions, mechanized infantry and armored units provide most of their own overwatch protection. Careful planning is required for battle handover to the light unit. Light unit direct fire overwatch weapons that are able to support from inside the battle handover line are scarce. To solve this problem, the mechanized infantry and armored force can provide some of its antiarmor assets to the light infantry. These assets usually are provided at company level and above.

b. **Light Force Forward, Heavy Force in Depth.** The heavy force assumes positions in depth behind the light unit's defense. The light unit's forward deployment shapes the battlefield for decisive action by the heavy forces. The light unit leaves an avenue of approach into the heavy force's engagement area. At the same time, the light unit prevents the enemy from using restricted terrain. If the enemy penetrates the light unit, the heavy force counterattacks, destroying the enemy or blocking him until additional units can be repositioned to destroy him. To support the counterattack, the light unit identifies the location of the enemy's main effort, slows his advance, and destroys his command, control, and CS elements. The light unit can guide the counterattacking force through restricted terrain to surprise the enemy on his flank.



c. **Light Force Terrain-Oriented, Heavy Force Enemy-Oriented.** Terrain-oriented refers to area defense; enemy-oriented refers to mobile defense. With this method, the entire force defends along the FEBA. The light force, whether used as a flanking or covering force or positioned in depth, places its elements to use restricted terrain effectively. The heavy force keeps its freedom of maneuver. To protect the light unit, contact points between light and heavy forces should be in restricted terrain. A light unit may defend to hold terrain while the tanks and BFVs maneuver to destroy the enemy from the flanks or rear.

d. **Strongpoint.** The light unit, with additional assets, occupies a strongpoint. The strongpoint forces the enemy into the heavy force's engagement area.

e. **Stay-Behind Operations.** The light unit occupies hide positions well forward of the FEBA. As the enemy passes, the light force attacks the enemy's command, control, CS, or CSS elements. The heavy force defends against enemy maneuver forces.

## A-21. RETROGRADE OPERATIONS

Retrograde operations include delays and withdrawals, which gain time and avoid decisive action. Heavy forces are employed against the enemy forces and avenues of approach that most threaten the operation. To move to subsequent positions, light forces need additional transportation assets, including helicopters. Basic movement techniques include maneuver and a reverse bounding overwatch. Heavy forces with small light force units mounted, along with infantry reconnaissance platoons and antitank elements, move to subsequent delay positions under the cover of mutually supporting forces.

## Section IV. ADDITIONAL OPERATIONAL CONSIDERATIONS

The following additional considerations apply in light/heavy or heavy/light operations.

## A-22. DISMOUNTED INFANTRY MOVEMENT RATES

Commanders of heavy forces often overestimate (or simply fail to recognize) the speed with which dismounted elements can move. Numerous factors can affect the rate of march for light forces: tactical considerations, weather, terrain, march discipline, acclimatization, availability of water and rations, morale, individual soldiers' self-confidence, and individual loads. Table A-2 summarizes dismounted rates of march for normal terrain. The normal distance covered by a dismounted force in a 24-hour period is from 20 to 32 kilometers, marching from five to eight hours at a rate of 4 kmph. A march in excess of 32 kilometers in 24 hours is considered a forced march. Forced marches increase the number of hours marched, not the rate of march, and can be expected to impair the unit's fighting efficiency. Absolute maximum distances for dismounted marches are 56 kilometers in 24 hours, 96 kilometers in 48 hours, or 128 kilometers in 72 hours.

	ROADS	CROSS-COUNTRY
Day	4.0 kmph	2.4 kmph
Night	3.2 kmph	1.6 kmph

**Table A-2. Dismounted rates of march (normal terrain).**

**A-23. TANK MOUNTED INFANTRY**

An additional maneuver consideration for a light/heavy or heavy/light operation is the decision of whether to move infantrymen on tanks. This mode of transportation can be difficult but is not impossible. It does, in fact, afford some significant advantages. The mounted infantry can provide additional security for the company team. When the team conducts a halt or must execute a breach or other tactical tasks, infantry assets are readily available to provide support and security. The commander must weigh the potential dangers of carrying tank-mounted infantrymen against the advantages of mobility and security they can provide. For specific procedures and safety considerations involved in mounting infantry on tanks, refer to FM 3-20.15.

**A-24. SAFETY CONSIDERATIONS**

Initially, most infantrymen are not familiar with the hazards that may arise during operations with tanks, BFVs, and other armored vehicles. The most obvious of these include the dangers associated with main-gun fire and the inability of armored vehicle crews to see people and objects near their vehicles. Leaders of heavy and light units alike must ensure that their troops understand the following points of operational safety.

a. **Discarding Sabot.** Tank sabot rounds and BFV antipersonnel rounds discard stabilizing petals when fired, creating a downrange hazard for infantry. The aluminum petals of the tank rounds are discarded in an area extending 70 meters to the left and right of the gun-target line, out to a range of 1 kilometer. The danger zone for BFV rounds extends 30 degrees to the left and right of the gun-target line, out to 200 meters from the vehicle. Infantrymen should not be in or near the direct line of fire for the tank main gun or BFV cannon unless they are under adequate overhead cover.

b. **Noise.** Tank main guns create noise in excess of 140 decibels. Repeated exposure to this level of noise can cause severe hearing loss and even deafness. In addition, dangerous noise levels may extend more than 600 meters from the tank. Single-layer hearing protection, such as earplugs, allows infantrymen to work within 25 meters of the side or rear of the tank without significant hazard.

c. **Ground Movement Hazards.** Crewmen on tanks and BFVs have very limited abilities to see anyone on the ground to the side or rear of the vehicle. As a result, vehicle crews and dismounted infantrymen share responsibility for avoiding the hazards this may create. Infantrymen must maintain a safe distance from armored vehicles at all times. In addition, when they work close to an armored vehicle, dismounted soldiers must ensure that the vehicle commander knows their location at all times.

**NOTE:** A related hazard is that M1-series tanks are deceptively quiet and may be difficult for infantrymen to hear as they approach. As noted, vehicle crews and dismounted infantrymen share the responsibility for eliminating potential dangers in this situation.

d. **M1 Exhaust Plume Hazard.** M1-series tanks have an extremely hot exhaust plume that exits from the rear of the tank and angles downward. This exhaust is hot enough to burn skin and clothing.

e. **TOW Missile System.** The TOW missile system has a dangerous area extending 75 meters to the rear of the vehicle in a 90-degree "cone." The area is divided into a 50-meter danger zone and a 25-meter caution zone.

## **Section V. COMBAT SERVICE SUPPORT OPERATIONS**

CSS planning and execution are critical elements for integration of light and heavy forces. Light brigades are not organized, equipped, or trained to meet the support requirements of a heavy company team. CSS may be further complicated if the heavy force is operating across a large geographical area to meet the demands of a decentralized mission. The following discussion covers CSS considerations that may affect light/heavy and heavy/light operations.

### **A-25. PLANNING AND INTEGRATION**

Light/heavy operations may require the heavy team to integrate into the light brigade organization early in the deployment phase. In turn, this may require CSS assets to move into the theater of operations very early as well, usually at the same time as the command and control elements. Specific support requirements, including needed quantities of supplies, depend on the mission and must be planned and coordinated as early as possible. In addition, because the light brigade does not possess the required logistical redundancy to sustain the heavy company team, it is imperative that mission requirements calling for division- or corps-level CSS assets be identified early in the planning process.

### **A-26. SUPPLY REQUIREMENTS**

Operations with a light brigade create many unique supply considerations for the heavy task force. The sheer bulk and volume of supplies required by the heavy task force merit special attention during the planning and preparation phases. The following paragraphs examine some of these supply-related considerations.

a. **Class I.** Class I food requirements are determined based on the heavy team's personnel strength reports. This process may be complicated by unique mission requirements imposed on the team, such as rapid changes in task organization or dispersion of subordinate company teams over a wide area.

b. **Class II.** Many Class II items required by tank and BFV crews, such as specialized tools and Nomex clothing, may be difficult to obtain in a light organization. Although such items can be ordered through normal supply channels, the heavy task force may face significant delays in receiving them. To overcome this problem, the heavy task force should identify any potential shortages and arrange to obtain the needed supplies before leaving its parent organization.

c. **Class III.** The fuel and other POL products required by the heavy task force are extremely bulky; they present the greatest CSS challenges in planning and preparing for light/heavy operations. Transportation support must be planned carefully. For example, planners must consider the placement of fuel HEMTTs during all phases of the operation. They must also focus on general-use POL products, such as lubricants, that are not ordinarily used by the light brigade. As noted previously, the heavy task force should stock its basic load of these items, as well as make necessary resupply arrangements, before attachment to the light brigade.

d. **Class IV.** The heavy task force does not have any unique requirements for barrier or fortification materials. The main consideration is that any Class IV materials that the commander wants may have to be loaded and carried prior to attachment.

e. **Class V.** Along with POL products, ammunition for the heavy force presents the greatest transportation challenge in light/heavy operations. Planning for Class V resupply should parallel that for Class III; key considerations include anticipated mission requirements and the availability of HEMTTs. Ammunition may be prestocked based on expected consumption rates.

f. **Class VI.** Light/heavy operations create no unique requirements for personal demand items and sundries.

g. **Class VII.** Class VII consists of major end items, such as "float" tanks or BFVs. The handling of these items requires thorough planning to determine transportation requirements and positioning in the scheme of the operation.

h. **Class VIII.** The heavy force involved in light/heavy operations may deploy with additional Class VIII to sustain projected METT-TC requirements.

i. **Class IX.** Repair parts for combat vehicles are essential to the sustainment of the heavy force. PLL and ASL stockage levels must be carefully considered before light/heavy operations begin. The heavy task force may find it advantageous to prestock selected items to meet its anticipated needs.

#### **A-27. OPERATIONAL CONSIDERATIONS**

A heavy task force can satisfy the CSS needs of a light infantry company more easily than an infantry brigade can satisfy the needs of a heavy task force or company team.

a. **Heavy Task Force with Infantry Company.** Except for mortar rounds, the mechanized infantry unit can provide all munitions the light infantry company needs. The S4 must plan to receive and move 120-mm, 81-mm, or 60-mm mortar munitions.

b. **Infantry Brigade with Heavy Task Force or Company Team.** Adding a mechanized infantry and tank battalion task force or company team to an infantry brigade significantly increases the fuel, ammunition, and maintenance that must be delivered to the forward area support team or the forward support battalions. The infantry brigade lacks the transportation required to support even a small heavy force, particularly the HETs, for armored vehicle evacuation. The heavy task force S4 must constantly anticipate the battalion task force's needs to allow the infantry brigade S4 more time to react. Support packages may be required for the heavy element that is attached or under OPCON of the light force. The preferred method of command relationship is OPCON, which permits the heavy task force to continue receiving support from its FSB. The support package may need to include fuel, HEMTTs and operators, HETs with drivers, tracked ambulances, and maintenance support teams.